IN THE CLAIMS

(1) Please add new Claims 19-31 as follows:

19. (New) An apparatus comprising:

a low pressure gaseous environment;

a substrate; and

a carbon nanotube layer deposited on the substrate, the carbon nanotube layer including an alkali material.

20. (New) The apparatus as recited in claim 19, wherein the alkali material is deposited as a layer onto the carbon nanotube layer.

21. (New) The apparatus as recited in claim 19, wherein the alkali material is doped into the carbon nanotube layer.

22. (New) The apparatus as recited in claim 19, wherein the alkali material is intercalated with the carbon nanotube layer.

23. (New) A field emission apparatus comprising:

a cathode comprising:

a low pressure gaseous environment;

a substrate; and

a carbon nanotube layer deposited on the substrate, the carbon nanotube layer including an alkali material.

24. (New) The apparatus as recited in claim 23, wherein the alkali material is deposited as a layer onto the carbon nanotube layer.

25. (New) The apparatus as recited in claim 23, wherein the alkali material is doped into the carbon nanotube layer.

26. (New) The apparatus as recited in claim 23, wherein the alkali material is intercalated with the carbon nanotube layer.

27. (New) The apparatus as recited in claim 23, further comprising a conductive layer deposited between the substrate and the carbon nanotube layer.

28. (New) A method for making a field emission cathode comprising the steps of:

providing a substrate;

depositing a carbon nanotube layer on the substrate;

inserting an alkali material into the carbon nanotube layer; and

enclosing the cathode in a low pressure gaseous environment.

29. (New) The method as recited in claim 28, wherein the inserting step further comprises the step of:

depositing a layer of the alkali material on the carbon nanotube layer.

30. (New) The method as recited in claim 28, wherein the inserting step further comprises the step of:

doping the carbon nanotube layer with the alkali material.

31. (New) The method as recited in claim 28, wherein the inserting step further comprises the step of:

intercalating the alkali material into the carbon nanotube layer.